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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,286	03/04/2004	Colin N.B. Cook	2540-0707	3146
43624 7590 08/03/2010 DAVIDSON BERQUIST JACKSON & GOWDEY LLP 4300 WILSON BLVD., 7TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
DISTEFANO, GREGORY A				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/792,286

**Applicant(s)**

COOK ET AL.

**Examiner**

GREGORY A. DISTEFANO

**Art Unit**

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 12-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This action is in response to the response filed 5/18/2010.
2. Claims 1, 2, and 12-15 are currently pending.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al. (US 2002/0038334), hereinafter Schneider, in view of Poley et al. (US 7,162,407) hereinafter Poley.

5. As per claim 1, Schneider teaches the following:

*utilizing a universal serial bus (USB) protocol to provide absolute movement of the mouse cursor (forced to cross-hairs) on a host computer to an absolute position (pseudo-cursor) other than the origin if the operating system supports the use of a USB-based human interface descriptor (HID) using absolute movement of the mouse cursor to an absolute position other than the origin, (pg. 9, paragraph [0087]), i.e. the controlling computer 12 generates a pseudo-cursor (e.g. a set of cross-hairs) that indicates where the digitized cursor should be. To initialize this process, the digitizer control application 220 sets the cursor of the target computer to a known location. For*

example, by sending to the target computer a series of mouse commands, it is possible to drive the cursor to the upper left hand-corner, no matter where the cursor was prior the series of commands. The original cursor is then forced back down to be aligned with the cross-hairs;

*synchronizing the position of a logical mouse and the position of the actual mouse the absolute movement to the absolute position other than the origin without operator intervention.* As Schneider describes in pg. 3, paragraph [0031], the re-alignment of a controlled pointer to the pseudo-cursor happens automatically within the system itself.

However, Schneider does not explicitly teach a method of testing the operating system of the logical mouse to determine if it supports USB HID. Poley teaches the following:

*testing an operating system of the logical mouse to determine if the operating system of the logical mouse supports the use of a USB-based human interface descriptor (HID) using absolute movement of a mouse cursor to an absolute position other than the origin, (column 2, lines 23-27), i.e. Fig. 1 shows a test system 10 for testing an in-test host's support of peripherals that use a given peripheral communications protocol. In the exemplary embodiment described herein, the test system is designed to test support for USB peripherals;*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the cursor control method of Schneider with the system testing of Poley. One of ordinary skill in the art would have been motivated to

have made such modifications because as Poley teaches in column 1, lines 36-40, "because of the popularity of USB peripherals, it is highly desirable to provide USB support in new computer products. However, it can be a challenging task to adequately test the USB support of a new computer product in light of the many different types and makes of available USB peripherals". Furthermore, Schneider discusses testing systems in pg. 7, paragraph [0072].

6. Regarding claim 2, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

*a virtual presence client (VPC) calculates said logical mouse position.* As Schneider teaches in pg. 9, paragraph [0087], either the digitizer control application 220 or the analyzing digitizer control application 240 may control the controlled cursor position to force it to a received position.

7. Regarding claim 12, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

*utilizing the universal serial bus (USB) protocol to provide the absolute movement of the mouse cursor comprises sending USB commands across an IP network, (pg. 3, paragraph [0029]), i.e. the controlling computer 12 also includes a communications device 53 for communicating with the target device(s).* Such a device 53 may include (1) a modem for connecting via a telephone connection, (2) a wireless transceiver for wirelessly communicating, and (3) a wired adapter (e.g. an Ethernet or

token ring adapter). In any of those configurations, the controlling computer 12 communicates with a target controller 50 using any selected communications protocol (e.g., TCP/IP, UDP or RDP).

8. Regarding claim 13, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

*buffering USB commands between the actual mouse and the host computer*, (pg. 3, paragraph [0035]), i.e. the target controller 50 operates to capture the video output of the target device. The captured video signals are stored in either a frame buffer internal to the controller card or in a memory shared with other components of the computer. In addition, the controller card 50 fills a set of keyboard/mouse buffers internal to the controller card with keyboard and mouse commands to be sent to the target device.

9. Regarding claim 15, Schneider teaches the method of claim 1 as described above. Schneider further teaches the following:

*aggregating mouse movement commands prior to sending the mouse movement commands across the IP network*, (pg. 9, paragraph [0088]), i.e. in order to avoid overloading the target computer with mouse packets, the digitizing control application 220 can queue mouse commands and send those mouse commands as a group.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider in view of Poley as applied to claim 1 above and further in view Kameda (US 5,828,372).

11. Regarding claim 14, Schneider teaches the method of claim 1 as described above. However, Schneider does not explicitly teach a method where the timing of the cursor commands are emulated on the controlled system. Kameda teaches the following:

*emulating the timing characteristics of the actual mouse when applying USB commands to the host computer, (column 6, lines 35-44), i.e. the terminal controller 103 causes the output information to be displayed on the display device 101 of user A. At the same time, the output information is transferred by the terminal controller 103 through the communication line 106 to the terminal controller 109 of user B. The terminal controller 109 causes the display device 107 to display the output information. Thus, the same output information generated by the application program 105 will be displayed on the display devices 101 and 107 of users A and B, respectively. The examiner would like to note that as Kameda's method of controlling the cursor on a controlling device and a controlled device at the same time, the timing of both cursor movements would be the same, thus the commands on the host computer emulate the timing characteristics of the actual mouse.*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the cursor control method of Schneider with the real-time control method of Kameda. One skilled in the art would have been motivated to have made such modifications because both Schneider and Kameda are analogous art in the field of remotely controlling separate display devices, specifically, cursors

displayed on those devices. Furthermore, Kameda directly states a problem which they look to address in column 1, lines 47-50, that "user B may experience some difficulty in learning how to manipulate the application program due to the speed at which information displayed on the display screen changes", thus describing a desire in the art to present information at a speed in which a controlling computer is operated.

### ***Response to Arguments***

12. Applicant's arguments filed 5/18/2010 have been fully considered but they are not persuasive:

Applicant argues on pages 2-4 of their response that none of the prior arts of reference teach or suggest "testing an operating system of the logical mouse to determine if the operating system of the logical mouse supports the use of a USB-based human interface descriptor (HID) using absolute movement of a mouse cursor to an absolute position other than the origin".

The examiner respectfully disagrees.

Applicant's arguments seem to be interpreting the arts of Schneider and Poley taken each alone and not in combination. This may be seen in applicant's arguments in page 3, second paragraph of their response where applicant states "In fact, the '407 patent does not disclose the word "absolute" or the phrase "absolute position" at all". As may be seen in the Non-Final Rejection dates 2/18/2010, Poley (patent '407) is cited as encompassing testing the remote system. Schneider is cited as teaching the limitation



of "absolute movement". Applicant is of the opinion that as Poley does not teach of absolute cursor movement, Poley may therefore be incapable of using said movement to test the support of a remote system. This is not the case. Once Schneider is modified by Poley, the combined system would in fact utilize positional commands to test the remote system. For example, as may be seen in Poley's Fig.1, a computer is termed a "peripheral emulator" #14 is used to send mock USB commands to the "in-test host" #12 in order to test the hosts USB capabilities. Poley further teaches in column 2, line 64 – column 3, line 30, that the peripheral emulator (controlling computer) generates different USB messages to test the capabilities of the in-test (controlled computer). Upon the modification of Schneider in view of Poley, the controlling computer would send a series of mouse control commands to the in-test system to test the systems USB capabilities of processing such commands.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

-Jessen et al. (US 5,410,681), teaches of sending from a host computer to a remote computer a series of commands to move the remote cursor in order to test the remote system.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY A. DISTEFANO whose telephone number is (571)270-1644. The examiner can normally be reached on Monday through Friday, 9 a.m. - 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Bashore can be reached on 571-272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GREGORY A DISTEFANO/  
Examiner, Art Unit 2175  
8/2/2010

/William L. Bashore/  
Supervisory Patent Examiner, Art Unit 2175